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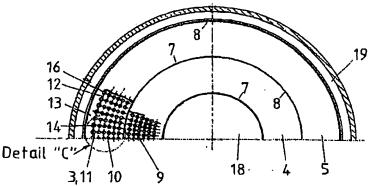
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Original Englishl

(54)Title: **TUBE BUNDLE HEAT EXCHANGER**



(57) [Original English] Abstract: The invention relates to a tube bundle heat exchanger comprising at least one channel (4, 5) that guides a heating or cooling medium, particularly a hot gas, whereby the tubes (3) of the tube bundles (2) extend in an, in essence, axially parallel manner with regard to the channel longitudinal axis (6) through the channel (4, 5), and the heating or cooling medium is guided through rings (9) and discs (10), which are arranged on and attached to the respective outer walls (7, 8) of the channel (4, 5) in an alternating manner whereby, when viewing in an axial direction of the channel (4, 5), zigzagging through the channel (4, 5) having, in essence, a circular cross-section. Inside at least one channel (4, 5), the rings (9) and discs (10) each accommodate and position all tubes (3) of a channel (4, 5) by means of cylindrical recesses (11), and the perimeter contour (12) of the rings (9) and of the discs (10) follow the mid-points (14, 15) of the outermost or innermost tube bundle tubes (3) on the medium flow-through side (13), whereby the perimeter contour (12) has a limb (16) that surrounds all outer most and innermost tubes (3).

Abstract: Tube bundle heat exchanger, having at least one channel (4, 5) that carries a heating or cooling medium, in particular, a heating gas, whereby the tubes (3) of the tube bundle (2) extend essentially axis-parallel to the channel longitudinal axis (6) through the channel (4, 5), and the heating or cooling medium is directed through rings (9) and discs (10), which are arranged on and fastened to the respective jacket walls (7, 8) of the channel (4, 5) in an alternating fashion, in a zigzag pattern as seen in the axial direction of the channel (4, 5), through the channel (4, 5) which exhibits an essentially annular cross section, whereby in at least one channel (4, 5) the rings (9) and discs (10) accommodate and position all the tubes (3) of one channel (4, 5), each by means of cylindrical recesses (11), and the perimeter contour (12) of the rings (9) and discs (10) on the medium flow-through side (13) follow the mid-points (14, 15) of the outermost or innermost tube bundle tubes (3), whereby the perimeter contour (12) includes a web (16) that surrounds all of the outermost or innermost tubes (3).